

## **GROUNDWORK DENVER WORKPLAN**

### **I. Project Title and Project Purpose Statement**

***Project Title:*** Healthy Air for a Healthy Community: Solving North Denver's Odor and Air Quality Problems Together

***Summary Description and Goals:*** Residents of North Denver and the nearby southern Adams County Colorado have lived for years with poor air quality and industrial odors. Requests for investigations and monitoring have been answered with the unsatisfying results that industrial emitters are in compliance with their permits, that odors don't violate the state odor regulation, and that local governments can't address odors that cross city or county lines. Still, the residents report acute health impacts (burning eyes and throat, headaches, difficulty sleeping) and a reduced quality of life due to odors including sewage, dog food, dead animals, tar and creosote. The goal of the project is to improve the lives of north Denver residents by using the Collaborative Problem Solving (CPS) method to develop and implement a solution that significantly reduces the industrial odor problem in north Denver and nearby Adams County.

***Location:*** Denver, Commerce City and unincorporated Adams County, Colorado. Zip codes: 80216 and 80022

***Environmental Statutes:*** This project relates to the Clean Air Act. The target zip codes are highly impacted by air emissions from industry, highways and railroad tracks. According to TRI, 80216 has 19 TRI facilities with 502,654 lbs of on-site air releases and 80022 has 4 TRI facilities with 77,707 lbs of on-site air releases. Major emitters include a coal-fired power plant, an oil refinery, tar and creosote companies, and paint manufacturers. Toxic air pollutants include Toluene, N-Hexane, Xylene, Hydrogen Sulfide, Benzene, and Polycyclic Aromatic Compounds. Interstate Highways 70 and 25 cut through the target area as do several major rail lines. The project will seek ways to reduce the negative health and welfare effects of these and other air emissions on the residents of these communities.

***Project Partners in the MOAs include:***

Groundwork Denver (non-profit organization); City of Denver Department of Environmental Health (City agency); University of Denver Environmental Law Clinic; and Globeville Civic Association #1 (registered neighborhood association).

### **II. Environmental and/or Public Health information about the Affected Community**

***Local environmental and public health issues***

This project seeks to address the exposure of North Denver and Adams County residents to air toxics and industrial odors. The issue presents three potential public health issues: 1) acute health impacts; 2) potential chronic health impacts due to hazardous air pollutants; and 3) quality of life impacts that could lead to stress, lack of exercise, and reduced social capital. Residents of these communities live with air pollution from two major highways, several railroad tracks, an oil refinery, a coal fired power plant, a dog food manufacturer, an animal rendering facility, a wastewater treatment plant, a creosote dipping facility, several tar-based industries and others. Residents have described acute health impacts like burning eyes and throat, headaches, skin irritation, and problems sleeping. Other residents have expressed fear that hazardous air pollutants may be causing chronic illness such as cancer, neurological, respiratory, and reproductive effects, especially for long-term residents who are exposed to combined or cumulative effects of many different toxics in the air. Surveys collected by Groundwork Denver

(GWD) in 2012 indicated that 80% of residents in the Globeville neighborhood (one of the project target neighborhoods) felt that odor was negatively impacting their quality of life.

According to TRI, zip code 80216 has 19 TRI facilities with 502,654 lbs of on-site air releases and 80022 has 4 TRI facilities with 77,707 lbs of on-site air releases. Emitted toxic air pollutants include Toluene, N-Hexane, Xylene, Hydrogen Sulfide, Benzene, and Polycyclic Aromatic Compounds. As we learned through an EPA EJ Small Grant project in 2011, odor-causing chemicals are often unrelated to hazardous air pollutants. These odor-causing chemicals are often not monitored, regulated or cataloged by EPA or the state health department despite the fact that they have a significant impact on the health and well-being of the residents.

The coal-fired Cherokee Power station is less than two miles from the neighborhood. Numerous studies have found that air pollution from sources such as trucks and coal power plants is associated with increased hospital admissions for asthma and other respiratory causes.<sup>1</sup> Gauderman et al. found that local exposure to pollution from highway traffic has adverse effects on children's lung development that could result in important deficits in attained lung function in later life.<sup>2</sup>

### ***The characteristics of the affected community***

This project will be focused in North Denver (Globeville, Elyria and Swansea neighborhoods), nearby southern unincorporated Adams County, and Commerce City, Colorado. The population of the target area is 32,700.

Approximately 32% of the residents in the target area live below the federal poverty level, with census tracts ranging from 20% to 41% of people living below poverty. This poverty rate is almost twice the poverty rate of Denver and Adams Counties as a whole (14% in Adams and 19% in Denver).

The target area demographics include: 68% Latino, 28% non-Latino White, and 4% other, compared to 34% Latino, 53% non-Latino White, and 13% other in the combined Adams and Denver counties as a whole. Almost 25% of the target area residents were foreign born and 33% of adults speak Spanish.

The construction of I-25 in the 1950s and I-70 in the 1960s cut these neighborhoods off from the rest of the City of Denver, causing neighborhood cohesion problems and increased public health risk due to diesel particulate emissions from the transportation corridors. Highway access brought additional industrial activity creating islands of residences surrounded by industry and highways.

These neighborhoods also have a history of coming together to solve environmental problems. The Globeville neighborhood was recommended for the Superfund National Priority List (ASARCO Globe site) in the early 1990s due to soils contaminated with lead, arsenic and cadmium. After an unprecedented neighborhood lawsuit, the residential yards were removed and replaced with clean soil. Several years later, the Elyria-Swansea neighborhood joined with two

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<sup>1</sup> Bell M, Goldberg R, Hogrefe C, Kinney P, Knowlton K, Lynn B, Rosenthal J, Rosenzweig C, Patz J: Climate change, ambient ozone, and health in 50 US cities. *Climatic Change* 82:61-76, 2007

<sup>2</sup> Gauderman WJ, Vora H, McConnell R, Berhane K, Gilliland F, Thomas D, Lurmann F, Avol E, Kunzli N, Jerrett M, Peters J: Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study. *The Lancet* 369:571-577, 2007.

other neighborhoods to test and cleanup their residential yards under the Vazquez Boulevard/I-70 Superfund project.

### ***Disproportionate Impact***

As described above, zip code 80216 has 19 TRI facilities with 502,654 lbs of on-site air releases. The entire City of Denver only has 33 TRI facilities with 563,405 lbs of on-site air releases, so the residents of this zip code – only 2% of the City’s population – bears the burden of 89% of the toxic air releases. Commerce City (zip code 80022) adds 4 TRI facilities with 77,707 lbs of on-site air releases, while the other nearby Adams County towns of Northglenn, Thornton, Westminster, and Federal Heights have no TRI sites at all.

I-70 and I-25 are major highways serving the economic and transportation needs of the entire metropolitan region; however, many studies have shown that health impacts are most severe for those living in very close proximity to the highways.<sup>3 4</sup>

Similarly, the odors associated with these regional industries (e.g. dog food manufacturer, rendering plant, shingle manufacturer, creosote dipping, oil refinery) and waste treatment facility impact those living within only a few miles of the facility. The residents of the target neighborhood are disproportionately impacted by these odors while others served by the facilities are not impacted at all, except perhaps by brief whiff as they drive by quickly on the highways.

This issue is an environmental justice concern because of the disproportionate impact combined with the facts that, when compared to the counties as a whole: 1) the target communities have significantly lower incomes and 2) a much greater percentage of the target population are people of color.

## **III. Organization’s Historical Connection to the Affected Community**

### ***GWD’s history of involvement with the affected community***

GWD has been involved with the affected communities for twelve years, since our inception as a non-profit organization in 2002. We became involved because of a need determined through a feasibility study. Leaders from these affected communities and others participated in a feasibility study that found that while much of the City of Denver is known for its parks and well-maintained streetscapes, an organization like GWD could fill a critical niche to partner with residents in implementing tangible neighborhood-based projects to improve the environment and foster environmental justice. This study led to the formation of GWD. Since its inception, GWD has worked with the affected community on issues ranging from indoor air quality, lead poisoning, green space improvements, built environment improvements and energy efficiency, typically getting involved at the request of residents, partner organizations or the City of Denver. For example, in 2006 GWD began working extensively with Globeville Civic Association #1 (GCA#1) in response to their request for assistance with converting five acres of vacant, contaminated land into a park. In 2010, leaders of GCA#1 requested our assistance to address air

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<sup>3</sup> Brugge, D et al, “Near-highway pollutants in motor vehicle exhaust: A review of epidemiologic evidence of cardiac and pulmonary health risks” Environmental Health 2007.

<sup>4</sup> Cho, S.-H., Tong, H., McGee, J.K., Baldauf, R.W., Krantz, Q.T. & Gilmour, M.I. “Comparative toxicity of size-fractionated airborne particulate matter collected at different distances from an urban highway”. Environmental Health Perspective: doi:10.1289/ehp.0900730.

quality issues and odors and we partnered on a successful request to EPA for an EJ Small Grant for this purpose.

### ***How GWD has worked with the affected community***

GWD has worked with the community residents as a partner to address several local environmental and public health issues including lead poisoning, climate change, contaminated soil, lack of green space and air quality. In a partnership model, GWD brings technical assistance, volunteer support, funding support, organizational support and direct service to the environmental issues that are important to the community. For example in response to the request to assist with odor issues, we partnered with the community leaders to write an EPA EJ Small Grant in 2011. With that successful grant received, we were able to engage the University of Colorado department of Mechanical Engineering for technical assistance. These engineers developed air sampling protocols, trained residents to collect air quality samples and analyzed the results. The grant paid for the sampling costs and allowed us to identify, train and pay community residents to collect surveys about the impact of odors on the lives of residents.

As another example, over the last six years, GWD has worked closely with the residents of the Globeville neighborhood on the improvement of approximately five acres of vacant land. Although the site was tested and cleaned up under Superfund, it is poorly maintained and has been plagued by illegal dumping and illicit activities. Despite its current condition, residents have created a vision for the site that includes an accessible playground, a walking trail, native landscaping, solar lighting, water retention areas to prevent flooding, and improved pedestrian access. In our partnering role, we have served as the coordinator to a resident steering committee for the project. On their behalf, we wrote several successful grant applications that allowed the residents to hire a landscape architect to design the site and to engage several technical consultants to complete an environmental review, title work and a land survey. As a result, the City of Denver is negotiating the purchase of the land to create Denver's newest natural area.

As an example of direct service, we have provided over 500 households in Globeville, Elyria-Swansea and Commerce City with healthy homes renovations (to address lead hazards, asthma triggers and safety concerns) and energy efficiency improvements. We work directly with low-income families to identify and prioritize their housing needs and then our staff implement the improvements. Through these programs, we have developed deep relationships with individual residents throughout the community.

### ***How the residents of the affected community are part of the decision-making process***

GWD works to make sure that the community is integrally involved with decision making on these projects. For example, the work to create a new park in Globeville has been led by a resident Steering Committee. GWD supports the Steering Committee by facilitating meetings, conducting broader community outreach at their direction, and serving as a fiscal agent for grants and donations. Our previous air quality work was conducted in close partnership with GCA#1 to develop and implement the work plan, including air monitoring, community surveying and follow up conversations with local politicians and agency departments.

Additionally, we are always gathering information from community residents to help guide our organizational direction. For example, GWD issues a bi-monthly Spanish-language newsletter that asks readers to contact us with ideas and concerns about the neighborhood; and we collect hundreds of surveys each year through door-to-door outreach asking people to weigh-in on neighborhood decisions around issues related to transportation, urban planning and safety issues.

### ***Increasing community capacity***

Whenever possible, GWD builds community training, leadership opportunities and economic opportunities into our projects to build the community capacity for addressing environmental issues. For example, we have employed community residents as energy auditors, community organizers and researchers and we employ 30 to 40 youth from the communities in which we work throughout the year. Our youth employees are trained in all aspects of our work. As the youth program enters in its eighth year, youth who started with us at age 14 are now majoring in environmental careers and taking on leadership roles at GWD and in their communities.

Additionally, many of our projects include an element of volunteerism and we recruit volunteers from the neighborhoods where we are working as another way to provide issue-based knowledge that increases community capacity to address environmental and public health issues.

### ***Maintaining and sustaining ongoing relationships***

GWD sustains ongoing relationships in the community by continuing to provide support for projects that are important to the residents, by following through on projects, and by staying with the project as long as needed. For example, we have been working with the residents to create the new park in Globeville for almost seven years, pushing through challenges that many told us were impossible to overcome. We have deep relationships with the residents and are a trusted partner. Involving residents in decision-making, project development, economic opportunities, volunteerism and training also helps build and deepen those relationships. Additionally, we often partner with other organizations that serve the community, building on each of our strengths to provide the best and highest service to the residents of the community.

## **IV. Project Description**

### **i) A concise description of the activities**

#### ***The local environmental and/or public health results the project projects seeks to achieve***

The project seeks to significantly reduce the industrial odor problem in North Denver and nearby Adams County.

#### ***How the project will achieve these results and the community benefit***

#### **Activity 1: Steering Committee Development and Support**

We will develop and formalize a steering committee of 5 to 10 that will represent the various stakeholders to guide and finalize an implementation plan for the project. We anticipate 1-2 residents, 1-2 community-based organization representatives, 1-2 City of Denver representatives, 1-2 Adams County representatives, and 1-2 business representatives. We will hold quarterly steering committee meetings (at a minimum) throughout the projects. The steering committee will review strategies to address the issue, engage stakeholders and decision-makers, review and integrate community input, and develop the final implementation plan. Representatives from Denver Environmental Health (DEH), Tri-County Health Department (TCHD), and GCA#1 have already agreed to serve on the Steering Committee. Others will be recruited within the first 60 days of the project.

As part of the capacity-building component of the CPS model, resident members of the steering committee will be eligible to participate in training seminars on elements of the CPS model, including dispute resolution, community organizing and facilitation. A training budget is included and members will decide and plan their own training schedule to fit their needs.

*Community benefit:* The community will benefit by having a strong, committed and focused set of stakeholders (including community representatives) working on this issue to achieve results. A diverse set of stakeholders will give the community a stronger, more powerful voice than it has had in the past when approaching each stakeholder independently. Community members of the steering committee will build their capacity to solve environmental problems in their own communities through training and participation on the Steering Committee.

### **Activity 2: Strategy Research**

During the last two years of work on this issue, several strategies for addressing the odor and air quality issues have been identified. These have included:

1. Changing the state odor regulation, the development of which was aimed largely at Concentrated Animal Feeding Operations, not urban areas.
2. Strengthening the language and/or improving enforcement of the nuisance odor provisions in Denver's air pollution control ordinance.
3. Exploring whether the Clean Air Act is being adequately enforced; review permits and reporting; request improved enforcement if applicable.
4. Use zoning and ongoing planning processes to prevent new odorous industries from establishing in the area, to encourage green businesses, and to phase out existing odorous industries. Create a "green zone".
5. Work with industries to identify and implement improved odor and emissions controls.
6. Implement improved ventilation and filtration technology in homes, schools and work places
7. Advocate for I-70 expansion mitigation funds to specifically address air quality impacts (the expansion of the I-70 highway necessitates impact "mitigation" – the specific mitigation projects have yet to be determined).
8. Address "low-hanging fruit" odors while we work on the bigger issues (e.g. diesel truck routes, car and truck idling, broken sewer lines, and smaller industries with easier solutions)

We will explore each of these potential strategies, documenting the process, costs, impacts, and likelihood of success of each. Our partner – DU Environmental Law Clinic – will assist with strategies 1, 2, 3, and 4. The City of Denver Planning Department will help with strategy 4 and DEH with 5, 6, 7 and 8. We will also seek additional technical partners to help analyze these strategies. Throughout the project, we will add new strategies to the list as they are identified by community members, other stakeholders and technical partners.

*Community benefit:* This activity will provide the community with realistic, unbiased information about the potential of success and the resources needed for each strategy.

### **Activity 3: Stakeholder Engagement and Community Organizing**

During the first quarter of the project, we will identify key stakeholders in the target area including land-owners, businesses, industry, schools, governmental entities, community-based organizations and community leaders. We will identify and engage stakeholders to inform them of the project and obtain input on impacts, goals and strategies. We will hold one-on-one stakeholder meetings with at least 15 major stakeholders as an initial stakeholder building process. We will ask these stakeholders how they would like to be involved during the remaining process with options of receiving regular information, attending steering committee meetings,

participating in steering committee sub-committees, providing review and input on strategies and additional one-on-one meetings after each task completion. We will provide presentations on the project effort and obtain feedback to existing constituency groups such as neighborhood associations, parent groups and faith-based organizations. At all stages of the project, contact information will be collected for a newsletter which will be produced and distributed at least bi-annually. Additional information will be regularly updated on GWD's website. GWD will be responsible for this activity.

In addition to stakeholder groups, GWD understands the power of broad community engagement through door-knocking and traditional community organizing. We know from previous work on this issue that community engagement will be critical to our ability to affect change. A community organizer will work door-to-door and at neighborhood events to help us gain a broader understanding of air quality impacts, to gather feedback on project direction, to identify leaders, to empower residents to log complaints with appropriate agencies (both the state and local odor regulations are complaint-driven), and to demand action from political leaders, policy makers, and accountable agencies. GWD and GCA#1 will be responsible for this community engagement. We expect to provide information door to door to at least 10,000 households utilizing volunteers and paid community organizers.

To further build community capacity, we will implement a community organizing training for residents of the target neighborhood involved in the air quality issue or other issues of concern in the neighborhood. We will work with local organizing groups to develop the agenda and host the training for up to 25 people.

We understand that the emitting industries are powerful stakeholders in this discussion. The community has reached out to these stakeholders on numerous occasions with little success. The City of Denver has achieved some success with one of the bigger emitters, but in many cases the emissions are generated in one county while impacting people in another (Adams to Denver or Denver to Adams). We will rely on our Steering Committee members (particularly DEH) and the power of our community organizing to approach and engage the industry stakeholders for successful dialogue, including the possibility of dispute resolution techniques as describe in the CPS model.

*Community Benefit:* Diverse multi-stakeholder partnership will help the community access the resources and power needed to address this issue. Broad community organizing will help increase the capacity of the community to understand the issue, take action and make informed decisions. Community organizing training will build the capacity of the neighborhood residents to address this and other issues.

#### **Activity 4: Strategy Prioritization and Implementation Plan**

We will work with the full range of stakeholders to select and prioritize the strategies to address the air quality issue. We will provide stakeholders with information and the opportunity to comment on the strategy prioritization via one-on-one meetings, community-based presentations, and newsletter communications (both electronic and paper). We will hold a public stakeholder meeting to present the details of the strategies and ask for stakeholder input. GWD will be responsible for this stakeholder outreach with other steering committee members assisting as needed.

Once strategies have been selected, we will develop the implementation plan schedule and set milestones for implementation. We will develop a monitoring and evaluation plan to show

progress and outcomes of the plan and establish criteria for measuring progress. We will determine technical and financial needs for implementing the strategies. The steering committee will guide the development of the implementation plan, supported by GWD and DU Environmental Law Clinic. The final implementation will be presented back to the community and stakeholders for final comments.

*Community Benefit:* By having a range of stakeholders prioritize the strategies and develop the implementation plan, the community will have engaged a powerful base to achieve results.

### **Activity 5: Strategy Implementation**

Since the collaborative process will determine the strategies and implementation plan, we cannot describe this activity in full detail. However, our timeline leaves six months to begin the process of strategy implementation during the grant period. We expect that some strategies will require a longer-term outlook, while others may be implemented within that six-month timeframe. GWD is committed to implementing the strategies beyond the end of the grant period to achieve the project goal of significantly reducing the industrial odor problem in north Denver and nearby Adams County. The Steering Committee and the broader community, supported by GWD, will be responsible for this activity.

*Community Benefit:* Community residents are wary of putting time and energy into another plan that doesn't achieve results. By committing to implementation, we will continue to build trust and support for a process that will meet the goals of the project and achieve real, measurable results.

### **Timeline (Q=quarter)**

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Activity 1: Steering Committee								
Development	●	●						
Ongoing support		●	●	●	●	●	●	
Activity 2: Strategy Research		●	●					
Activity 3: Stakeholder Engagement								
Initial Stakeholder meetings		●	●	●				
Door-to-door outreach			●	●				
Community organizing training			●					
Industry meetings				●	●			
Activity 4: Strategy Prioritization and Implementation Plan								
Follow-up Stakeholder meetings					●	●		
Follow-up door-to-door outreach					●	●		
Finalize implementation plan						●	●	
Activity 5: Strategy Implementation							●	●

### ***Collaborative Problem Solving model elements in the project***

#### **CPS Element 1: Issue Identification, Community Vision & Strategic Goal-Setting**

We are starting this project with CPS Element 1 partially complete. The issue of concern – air quality and odor has been identified by the community through the activities of our previous EPA EJ Small Grant project and follow-up work. Through that project, we learned that over 80% of people surveyed in Globeville indicated that odors and air quality were negatively impacting their quality of life and follow-up work has found that many residents, organizations and



businesses in the target neighborhoods are concerned with this negative impact. At the same time, the North Denver communities of Globeville, Elyria and Swansea have been undergoing comprehensive neighborhood planning processes, through which residents are creating a vision for a clean, healthy, and physically connected greater community. The City of Denver has created a Mayoral Initiative (the North Denver Cornerstone Collaborative) to help coordinate the vision for broader regional development impacting these communities, including I-70 reconstruction, the National Western Stockshow redevelopment, Brighton Boulevard Corridor redevelopment, and several new light rail stations and lines. We will build upon this experience and the work already completed to identify additional partners, gather more resident feedback, set strategic goals for the project and integrate the strategies into the ongoing planning projects in the target area.

#### CPS Element 2: Community Capacity-Building and Leadership Development

During the past two years of work on this issue, several strategies have been identified that could achieve the goal of reducing industrial odors and improving air quality. This project will help us gather important information to allow the community to make informed decisions about which strategies to pursue. Door-to-door community outreach and organizing, as well as stakeholder meetings, will educate the residents about the problem and involve them in formulating and prioritizing strategies. This effort will also help us identify potential leaders to involve in the implementation efforts. The steering committee will include at least two residents who will be eligible for training on elements of the CPS model including dispute resolution, community organizing and facilitation. We will also host a community organizing training for residents of the target community who are involved in the air quality issue or other important issues in the community.

#### CPS Element 3: Consensus Building & Dispute Resolution

In the formation of the Steering Committee, we will design a process for the fair treatment and meaningful participation of Steering Committee members and other stakeholders. Based on past experience, we expect to use dispute resolution techniques with industry partners and have budgeted for a neutral third-party facilitator for those meetings.

#### CPS Element 4: Multiple Stakeholder Partnerships & Leveraging of Resources

Stakeholder engagement is a core activity for this project. We will reach out to and engage residents, community organizations, businesses, industries, political representatives, educational institutions, and governmental agencies. We will educate stakeholders and ask for their input into the strategies to address the air quality issue to develop a common vision, goals, strategies and actions that stakeholders will support and participate in.

#### CPS Element 5: Constructive Engagement by Relevant Stakeholders

We will utilize the strengths of our stakeholders to accomplish the project goals. Because of the complexity of this issue, we know that government, business, academic institutions and community organizations each are needed to contribute technical, political, policy and community support in order to achieve success.

#### CPS Element 6: Sound Management & Implementation

GWD has demonstrated its sound management and implementation skills on numerous projects. The project manager will clarify plans, timelines, and commitments of partners; use clear and transparent communications; and focus on results-oriented activities.

### CPS Element 7: Evaluation, Lessons Learned, & Replication

The logic model and performance measures developed as part of this application will guide ongoing evaluation of progress. The Steering Committee will utilize this to track milestones and measures of success. We will track measures of success quarterly, sharing accomplishments and lessons learned with stakeholders via the project newsletter, community presentations and door-to-door outreach. We will share information on project successes throughout the project and in a final project lessons learned and best practices document that will be posted on the GWD and Groundwork USA websites and provided to EPA for dissemination.

#### ***How the organization's efforts will increase the community's capacity***

- The project will provide the community with unbiased, technically accurate information so residents can make informed decisions about air quality improvement strategies.
- The project will help build partnerships that will provide the community access to information and power to address this problem.
- The project will provide leadership roles and training for community residents so they can guide this effort.
- The project will take direction from community residents and develop an implementation plan based on their input.
- Implementation will necessitate strong community involvement. The capacity building during the first 18 months of the project will be integrated into the implementation during the last 6 months and beyond.

#### **ii) How the organization and its partners will work together to address the local issue(s).**

##### ***The role of the partners; the nature of organization(s); resources they bring to the partnership***

The partners committed to this project include:

<b>Partner</b>	<b>Nature of Org.</b>	<b>Role: Resources</b>
GWD <sup>1</sup>	Non-profit	Project coordinator: volunteers; community organizing skills; relationships with other organizations and residents; neighborhood knowledge
DEH <sup>1</sup>	Denver City Agency	Steering Committee Member and liaison to industry: technical knowledge and skills; relationships with industry, City agencies and other stakeholders; regulatory powers
GCA #1 <sup>1</sup>	Neighborhood Association	Steering Committee Member: neighborhood relationships; local knowledge; local trust
DU Environmental Law Clinic <sup>1</sup>	Educational Institution	Technical Partner: law student interns; knowledge of law, regulation and policy; research capabilities.
Tri-County <sup>1</sup> Health Department	Adams County agency	Steering Committee Member: technical knowledge and skills; relationships with Adams County stakeholders and residents; historical knowledge of issue.
Colorado State University	Educational Institution	Stakeholder (CSU is planning to move a campus element into the target area): researchers and interns

Denver Community Planning and Development	Denver City Agency	Technical Partner: knowledge of urban planning issues and community vision for Denver neighborhoods; relationships with stakeholders.
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<sup>1</sup>We have MOA/MOU from these entities. The others have agreed to participate as described. Agreements will be developed if the project moves forward.

***How the partners have a vested interest in working with this partnership, commitments made, and specific activities it will be responsible for***

Commitments via an MOA/MOU<sup>5</sup> have been made by DEH, DU Environmental Law Clinic, GCA#1 and GWD. Their specific committed roles can be found in the attached MOA document and in the table above.

- GWD will be responsible for project management and coordination, and community organizing. Our mission gives us a vested interest in improving the physical environment in the target area. Our relationships with residents give us the personal vested interest to respond to their needs and requests.
- DEH will be responsible for technical analysis of air quality data and issues, industry engagement, and governmental agency engagement. As the agency charged with improving environmental quality and public health in the City of Denver, DEH has a vested interest in making these communities healthy and sustainable places to live. DEH is also the recipient of odor complaints and the regulatory agency for the City's odor regulation.
- DU Law Clinic will be responsible for strategy research. The Clinic has the vested interest of providing its law students with real-world cases and issues as part of their education. Their Colorado Urban Project has the mission of utilizing this resource to solve urban environmental problems, and since its inception has worked on behalf of North Denver residents.
- GCA#1 will be responsible for community outreach and engagement. The mission of GCA#1 is to educate and inform neighborhood residents about issues and matters affecting their health, welfare and information of general community interest. The association members are residents of the impacted community.
- TCHD will serve on the steering committee and help with stakeholder engagement in Adams County. The mission of TCHD is to protect, promote and improve the health, environment and quality of life for the residents of Adams, Arapahoe and Douglas Counties. The target community includes residents of Adams County.
- CPD will serve as a liaison between the neighborhood planning processes creating a vision for the north Denver neighborhoods and this project to improve air quality. Their interest is to create a healthy and sustainable community as envisioned in the planning process.
- Colorado State University (CSU). CSU will serve as a stakeholder to the project and will connect student interns and researchers to assist with technical needs. CSU is planning to have an extension to its campus in the heart of the target community. Their interest lies in creating a healthy environment for its employees and students, and providing interesting and meaningful research opportunities for students.

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<sup>5</sup> The City of Denver attorneys regard an MOA as a negotiated contract that would require legal resources from both parties. In response, they have named the agreement as an MOU for the purpose of this application to avoid spending unnecessary funds before the project is awarded.

***How the applicant plans to maintain and sustain the partnerships***

We will maintain these partnerships through quarterly steering committee meetings, regular stakeholder updates, open communication, meaningful engagement and sound management and implementation.

**V. Organizational Capacity and Programmatic Capability**

***The organizational and administrative systems***

GWD has systems and procedures in place to manage, expend, and account for Federal funds. We utilize Quickbooks Pro accounting software and use Generally Accepted Accounting Principles. We track expenditures separately for each grant agreement and by budget line item (e.g. personnel, fringe, travel, etc.). We track staff time by project on timesheets. We are familiar with Federal draw-down procedures and fiscal reports. At any time, GWD can provide an accounting of expenditures and funds remaining in each budget area for each grant project. We had an A-133 audit in 2011 (due to reaching the limit of >\$500,000 in federal funds) and the auditor found that we complied with the federal requirements in all material respects. We follow the same procedures regardless of whether the A-133 audit is required and have a full audit each year. We bill each grant monthly. GWD's financial manager pulls together backup documentation for the monthly drawdown and tracks the cumulative budget line item expenditures as compared to the approved budget. The project manager will compare these expenditures with the completion of milestones to ensure that the progress of grant expenditure matches with the accomplishments of the project.

***Successful management of these projects in the past***

GWD has successfully managed federally funded assistance agreements and other contracts for over ten years. Tasks have been completed as described in the work plans, output goals have been met, and deliverables have been provided to the satisfaction of program officers. We have successfully managed these types of projects for several reasons: 1. We have organizational and administrative systems in place as the backbone of management; 2. We have qualified and dedicated staff; 3. We build authentic relationships with community members, following their lead on issues and solutions, and providing training and economic opportunities to build capacity and leadership; 4. We are responsive to the needs and requirements of our funding partners; 5. We partner with other organizations, agencies, and stakeholders to complete the tasks using the best resources for the job.

***Plans to effectively manage and successfully complete this proposed project***

The project manager will develop the final work plan, timeline, and evaluation plan for the project. Working closely with the project partners and stakeholders, she will evaluate the completion of tasks and evaluation measures every month to ensure that we are on track to project completion. Changes will be made on a quarterly basis if needed to adjust the work plan to meet the project goals. While the project manager's experience closely mirrors the CPS model (see Section VI), she will learn from EPA and other grantees to implement the full scale of the approach to successfully address the air quality issue in north Denver.

***Organizational experience***

GWD is a non-profit organization with the mission of improving the physical environment through community-based partnerships and action. The organization was started in 2002 as part

of the Groundwork USA network, after a feasibility indicated the need for such an organization. Since inception, GWD has demonstrated its ability to engage a diversity of Denver residents, businesses and governmental entities in collaborative projects that result in environmental improvements. The organization has successfully improved urban green space, increased access to healthy foods, reduced greenhouse gas emissions, and increased recycling rates in North Denver, Commerce City and other lower-income neighborhoods. GWD has implemented numerous outreach campaigns to engage low-income residents in environmental issues, successfully engaging almost 20,000 households in recycling, tree planting and energy efficiency.

In recent years, GWD has been tackling more complex environmental issues including impaired urban waters, deteriorated urban infrastructure in the built environment, and poor air quality. Similar to this proposed air quality project, GWD has led the Bear Creek Watershed planning process for the last two years. We convened a steering committee of stakeholders who are guiding the completion of the watershed plan; we have engaged a broad range of stakeholders through educational sessions, door-to-door outreach, and volunteerism to get input on the plan and to build stewardship for the water; we have brought numerous resources to the project (e.g. university partners; federal agency partners; business partners); and we are making headway on an issue that many deemed too difficult to address in a collaborative manner.

Many of the neighborhoods where we work include a large number of Spanish-speaking residents, including the target neighborhoods for this proposed CPS grant. GWD staff is highly skilled and experienced working with the Spanish-speaking community, providing all services in both languages. GWD has 12 full-time, 4 part-time staff, and 30 youth employees. We have the facilities, technology, and communications and accounting infrastructure to successfully complete the project.

***Past performance in meeting reporting requirements (e.g., progress reports, financial status).***

GWD has successfully completed several federal grants and cooperative agreements as described in more detail in Section VII of this application. Please see Section VII for the Project Officer names and grant agreement numbers. GWD successfully managed the assistance agreements described in Section VII and many others funded by EPA, HUD, National Park Service, Federal Highway Administration and US Fish and Wildlife Service in the last five years. Tasks were completed as described in the work plans, outputs and outcomes were met, and deliverables were provided to the satisfaction of program officers. GWD submitted quarterly and/or semi-annual reports, final reports and financial status reports to EPA on time and in accordance with the grant agreements.

**VI. Qualifications of the Project Manager (PM)**

***Qualifications of the PM as they relate to the project***

We have selected Rachel Hansgen to be the Project Manager for this CPS project for her exceptional ability to manage a collaborative process, her open communication style, and her experience and relationships with the affected community. For the last 18 months, Rachel has successfully managed a similar collaborative process – the lower Bear Creek Watershed planning effort. The goal of this effort is to develop a watershed plan that will result in improved the water quality in, access to, and amenities for Bear Creek in Denver and Sheridan, Colorado. In this capacity, she is responsible for supporting a steering committee, managing technical analyses,

data collection and analysis, and stakeholder engagement. She has demonstrated her effectiveness at many of the elements of the CPS model including: community visioning; consensus building and dispute resolution; stakeholder engagement; leveraging resources; and sound project management. Rachel has a Master's of Public Health degree from the University of Colorado, giving her the added skills and knowledge to understand the data and analyses of the public health impacts on the residents of the target neighborhoods.

***PM ties to GWD and the community; and past activities with the community***

Rachel joined GWD in 2012 to manage the EPA EJ Small Grant that began our involvement with GCA#1 to address air quality issues in north Denver. In this capacity, she worked closely with the leaders of GCA#1 as well as volunteers and paid residents who collected health surveys and air samples. She regularly updated the broader community through neighborhood meetings and an air quality newsletter that was distributed door-to-door throughout the community. Rachel built trust with community members and leaders through her dedication to the project, sharing of information, and her open communication style.

Rachel's combination of formal education in public health, demonstrated successful experience with managing a collaborative process to address a complex environmental and public health issue, and her direct involvement with the impacted community have prepared her for success with addressing the air quality issue in north Denver using the CPS model.

**VII. Past Performance in Reporting on Outputs and Outcomes**

***Similar agreements in the past three years***

<b>Grant Title</b>	<b>Agreement # and agency</b>	<b>Amount</b>	<b>Contact</b>
Housing-based Approach to Reducing Childhood Lead Poisoning in Rural Colorado	X897887101 (EPA)	\$96,752	Michelle Reichmuth 303-312-6966
Globeville Air Quality Outreach and Solutions	EQ-96815901 (EPA)	\$25,000	April Nowak 303-312-6528
Climate Showcase Grant (GWD was subcontractor to the City of Denver for EPA-funded project)	GC03003 (City of Denver)	\$150,000	Gregg Thomas 720-865-5413

***How progress towards achieving the expected outputs and outcomes was documented***

Outputs were tracked on the timeline submitted with the work plans, and reported as outlined in the grant agreement. Short term outcomes were reported in final reports. In many cases, long-term outcomes are still being tracked as these are important ongoing outcomes for GWD.

For example, the City of Denver requested quarterly reports from us for their Climate Showcase grant. We provided them with outputs including the number of households we reached with energy efficiency information, the number of incandescent bulbs swapped for compact fluorescent bulbs, the number of families signed up for recycling and free trees, and the number of families referred for full weatherization services. At the end of the grant period, we calculated outcomes including the CO<sub>2</sub> emissions reductions and money saved as a result of all of the outputs.

The EPA EJ small grant required reporting each six months. We reported outputs such as the number of health surveys collected, the number of air samples collected and the lab results of the air samples. Outcomes were analyzed in the final report, describing our understanding of the air quality issues in the neighborhood and documenting next steps, including those that are included in this proposal.

***Describe whether you have documentation to explain why progress not made***

Extension requests were made and granted for both the EPA Lead Poisoning grant and the EPA Air Quality grant due to the length of time needed to achieve QAPP approval from EPA. We have become skilled at developing the QAPP and will work on it with the EPA program officer immediately if this CPS grant is awarded.

## **VIII. Expenditure of Awarded Grant Funds**

***Approach:*** Our approach to ensuring that awarded grant funds will be expended includes the following: 1) immediately assign the PM to the job – she is already on-board and aware of the project issues; 2) immediately proceed with the QAPP and other grant startup requirements; 3) track project milestones on the timeline; 4) bill monthly, comparing the expenditure of budget line items with the completion of project tasks and milestones; 5) review milestones, timeline and budget tracking quarterly and make adjustments as needed to ensure that the project is completed on time and that grant funds are expended in a timely and efficient manner.

***Procedures:*** Timesheets are completed by staff on a weekly basis to track staff expenditures on specific grant projects. These are turned in bi-weekly for payroll processing. Other direct expenses for grant projects are submitted by the Program Manager for approval by the Executive Director before payment is made. The GWD financial manager completes drawdown requests monthly, comparing expenditures with budget line items and total budget, and pulling together all backup documentation (timesheets, invoices, etc) and the monthly Quickbooks accounting report for the specific grant and time period. The invoice is submitted to EPA following the grant agreement procedures (currently for electronic funds transfer).

***Controls:*** Direct expenses are submitted by the Program Manager for approval by the Executive Director or Financial Manager before payment is made. The approval process provides a control to ensure expenses are eligible for the grant program and in line with the approved budget. The GWD Financial Manager utilizes a spreadsheet version of the approved budget with columns representing each monthly billing to show a “remaining budget” in each line item. The Program Manager uses this as a tool to compare expenditures with project milestones to make sure the project isn’t under-expended or over-expended. The project will be run on a “reimbursement” basis, and expenditures will be approved before the request for reimbursement from EPA is made. Additionally, GWD has a full set of accounting controls to ensure integrity of our financial system including: two signatures required on checks over \$5,000; separation of duties for check approval, check processing and check signing; and separation of duties for check receiving, recording income in Quickbooks, and depositing checks.

## **IX. Quality Assurance Project Plan (QAPP) Information**

We believe that we will use existing environmental data and collect new data, so a QAPP will be necessary. We will work with the EPA QA/QC staff to determine the appropriate QA/QC practices for the project and to develop a Quality Assurance Project Plan (QAPP).